

Figure 1. Dolly Storage - Gas Generator

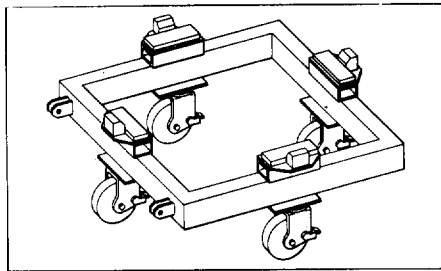


Figure 2. Dolly Storage - Power Turbine

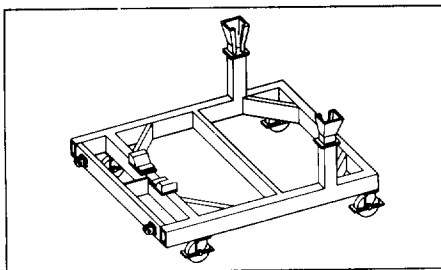


Figure 3. Dolly Storage - High Speed Shaft

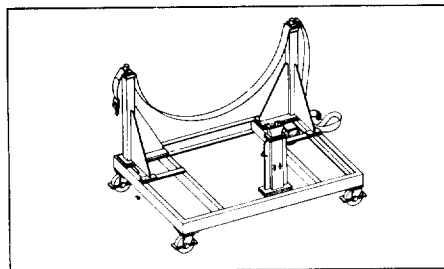


Figure 4. Dolly Storage - Inlet Screen Assembly

GAS TURBINE PROBLEM ANALYSIS (MOCKUP) TRAINER, DEVICE 19E14

TRAINING CATEGORY:

PROPULSION ENGINEERING (Maintenance Equipment)

ORIGINATING AGENCY:

CNET

SECURITY CLASSIFICATION:

Device 19E14 is unclassified.

INTENDED USE:

In gas turbine maintenance training schools, to familiarize maintenance personnel with the physical characteristics of the LM2500 gas turbine and its requirements for the installation or removal from the propulsion module.

FUNCTIONAL DESCRIPTION:

Device 19E14 consists of four (4) storage dollies and a rail structure. The four dollies are for storage of the gas generator, the power turbine, the high speed shaft, and the inlet screen assembly. The rail structure spans the module to guide

the gas turbine components from and into the module. A single tow-bar is provided which attaches to any of the four (4) dollies for towing.

The basic construction of each of the four (4) dollies is similar, being of solid weldments set on four casters, each. The casters have swivel locks and wheel brakes for towing control and for parking security. Each of the dollies has tabs for attaching the removable tow-bar.

A single tow-bar is provided for all of the four (4) dollies to minimize off-dolly storage. The tow-bar is attached with quick-locking pins for easy removal, or it may be hinged upward for vertical storage on the dolly without removal. The tow-motor interface is a standard pintle-hook loop.

The rail structure is a bolted assembly of welded components to form a hoisting and engine access framework to straddle the propulsion gas turbine module. Drilled pads attached to the base of each of the four (4) main vertical columns of the structure are for bolt attaching the frame to the floor.

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Note: The load-carrying capabilities of the floor to which the structure is attached, must be a minimum of 10,000 pounds per vertical column.

Standard torques for the applicable sizes and materials of bolts and nuts are used for assembly of the rail structure.

The accessory hoist, used with the rail structure, is marked with the load limit compatible with the design intent of the frame.

PHYSICAL INFORMATION:

The following dimensions are approximate, and the weights, except for the rail structure, are laden weights. The dimensions and weights for the dollies do not include the demountable tow-bar. The weight down for the rail structure is calculated shipping weight of the frame.

Number of Pieces: Five (5) (plus tow-bar)

NAME	SIZE	WEIGHT
DOLLY, Storage Gas Generator	11' x 6' x 5'	6,000 lbs.
Power Turbine	5' x 5' x 1 1/2'	4,500 lbs.
High Speed Sh.	8' x 6' x 5'	2,100 lbs.
Inlet Sc. Assy	4' x 6' x 5'	1,200 lbs.
Rail Structure	23' x 18' x 13'	16,000 lbs.

Support brackets on the storage dollies are designed to accept the gas turbine and/or components without special adapters.

Dollies, where applicable, are fulcrum units for translating gas turbine components from vertical to horizontal, or reverse.

PUBLICATIONS FURNISHED:

Summary, NAVTRADEV P-3974 (U)

REFERENCE PUBLICATIONS (NOT SUPPLIED):

Maintenance Manual, GEK 35612

PERSONNEL:

Instructor: One (1) qualified in gas turbine maintenance

Trainees: Class of 6, maximum

Maintenance: Maintenance is nominal, consisting of periodic cleaning.

CONTRACT IDENTIFICATION:

Manufactured by General Electric Co., New Orleans, LA under NAVTRASYSSEN Contract No. N61339-73-C-0151.

LOCAL STOCK NUMBER:

6910-LL-C00-3267